

CLAIMS

1. A method of controlling granule secretion comprising performing a treatment to increase or decrease an active form of calgranulin on a cell line having granules secretion capability, thereby increasing or decreasing granule secretion from the cell line.

2. The method according to claim 1, wherein the cell line having granule secretion capability is neutrophils or neutrophil-like cultured cells originating from a warm-blooded animal.

3. The method according to claim 1 or claim 2, wherein the active form of calgranulin is one or more of the following peptides:

(i) A peptide consisting of the amino acid sequence 1-93 of Sequence ID No. 1 of the Sequence Table and binding calcium thereto,

(ii) A peptide consisting of the amino acid sequence 1-114 of Sequence ID No. 2 of the Sequence Table and binding calcium thereto, and

(iii) A peptide having an amino acid sequence in which one or more amino acids are deleted from or added to the amino acid sequence of Sequence ID No. 1 or 2 of the Sequence Table, or one or more amino acids in the amino acid sequence of Sequence ID No. 1 or 2 are replaced with other amino acids, binding calcium thereto, and exhibiting the activity of increasing secretion of granules of cell lines having granule secretion capability.

4. A method of detecting a substance which inhibits or

activates a granule secretion reaction comprising the following steps:

A) a step of increasing an active form of calgranulin in cell lines having granule secretion capability;

5 B) a step of causing a sample which may contain a substance inhibiting or activating the granule secretion reaction to contact with the cell lines having granule secretion capability before, after, or during the step A), and incubating the mixture; and

10 C) a step of detecting the subject substance secreted from the cell line.

5. A method according to claim 4, wherein the step A) of increasing an active form of calgranulin in a cell line having the capability of secreting granules comprises successively carrying out the following steps a) and b):

15 a) a step of changing the cell line having granule secretion capability into a permeabilized cell; and

b) a step of simultaneously or successively adding a calgranulin and a water-soluble calcium compound to the cell
20 line and incubating the cell line.

6. The method according to claim 4 or claim 5, wherein the cell line having granule secretion capability is neutrophils originating from a warm-blooded animal or neutrophil-like cultured cells.

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25 7. The method according to any one of claims 4-6, wherein the active form of calgranulin is one or more of the following peptides:

(i) A peptide consisting of the amino acid sequence 1-93 of Sequence ID No. 1 of the Sequence Table and binding calcium thereto,

5 (ii) A peptide consisting of the amino acid sequence 1-114 of Sequence ID No. 2 of the Sequence Table and binding calcium thereto, and

10 (iii) A peptide having an amino acid sequence in which one or more amino acids are deleted from or added to the amino acid sequence of Sequence ID No. 1 or 2 of the Sequence Table, or one or more amino acids in the amino acid sequence of Sequence ID No. 1 or 2 are replaced with other amino acids, binding calcium thereto, and exhibiting the activity of increasing secretion of granules of cell lines having granule secretion capability.

15 8. The method according to claim 5, wherein the water-soluble calcium compound is a solution or powder of a compound which produces calcium ions at a concentration of 100 mM or more when the compound contacts with water.

9. The method according to any one of claims 4-8, wherein the method of detection is a quantitative determination method.

20 10. The method according to any one of claims 4-8, wherein the method of detection is a screening method.

25 11. A method of obtaining a substance for controlling intimal injury of blood vessels comprising acquiring the substance for controlling intimal injury of blood vessels by screening a substance inhibiting granule secretion reaction by the method of claim 10.